

### **REMARKS**

This is in response to the Official Action of December 23, 2004. The points raised therein are addressed below in the order originally set forth.

#### **Drawings.**

A proposed drawing correction is submitted concurrently herewith.

#### **Specification.**

The blank spaces in the specification are due to page break formatting difficulties in the document, did not contain text or tables, and are intentionally blank. In light of this explanation, it is respectfully submitted that this objection may now be withdrawn.

#### **35 USC 112, second paragraph**

Claims 1-18 stand rejected as indefinite for a variety of reasons raised by the Examiner.

Claim 1 is indicated to be indefinite in the nature of "recombination site" it being noted in the action that, upon reading the specification, it appears the invention is directed to methods featuring recombination sites recognized by site-specific recombination enzymes. Applicant agrees and claim 1 has been amended to better correspond to this intended meaning. Accordingly, it is respectfully submitted that this rejection may be withdrawn.

Claims 1 and 3 are indicated to be vague in the meaning of "a target site flanked by a single recombination site", it being said that taken literally this language should indicate recombination sites on both sides. Claim 1 has been amended as indicated above, and claim 3 has been canceled to simplify the record. Accordingly, it is respectfully submitted that this rejection may be withdrawn.

Claims 8-10 are said to lack antecedent basis for "said recombinase" due to lack of this feature in claim 1. Claim 1 has been amended to add a recitation of a recombinase for the reasons set forth above, and accordingly it is submitted that this rejection may be withdrawn.

Claim 13 is said to be indefinite in the use of "cells, some of which are transformed" in conjunction with "at least one transformed cell". Applicants have clarified claim 13 above to more particularly point out the subpopulation of cells to which the cell transformed in step (b) belongs, and it is respectfully submitted that this rejection may be withdrawn.

### **35 USC 102**

Claims 1, 2, 4, 6, 7 and 9-18 stand rejected as anticipated under 35 USC 102(e) by US Patent No. 6,187,994 to Baszczynski. This rejection is respectfully traversed.

As shown in **Figure 4A** of the instant application, the present invention proceeds through the following sequence of events. The first line of Figure 4A represents an *Agrobacterium* transformation vector carrying a nucleotide sequence of interest (YFG), with the nucleotide sequence of interest flanked by a pair of identical FRT sites (see Example 2 for further support for the identity of these sites). The third line of Figure 4A indicates a chromosome of interest in the plant cell having a target site (exemplified by GUS in Figure 4A) having "flanking" recombination site on one side thereof that corresponds to the recombination sites in the transformation vector. A site-specific recombinase is introduced to catalyze, first, the random integration of the nucleotide of interest from the *Agrobacterium* vector into the chromosomal DNA; second, the generation of an excision circle containing the nucleotide of interest (YFG) from the original random integration site in the chromosomal DNA; and third, the targeted insertion of the nucleotide of interest ((YFG) from the excision circle into the target site.

Claim 1 has been amended to more particularly point out the features found in **Figure 4A**, with support for this amendment being found in Figure 4A and accompanying text (eg., Example 2).

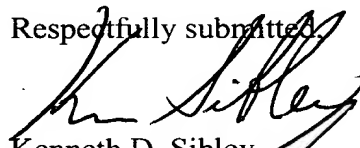
The features of claim 2 have been added to claim 1 in view of the importance of a site-specific recombinase to achieving the intended result. As noted in the specification at, for example, page 8 lines 20-28, the recombinase can be introduced in a manner of different ways, all of which are intended to be encompassed by the claims.

Baszczynski et al. is distinguishable from the present invention in that, first, non-identical FRTs are critical to achieving their effect (see, for example, column 2 lines 39-51 therein); and their nucleotide of interest is not inserted into the chromosome first in a random manner; and their nucleotide of interest is not subsequently reinserted into the chromosome via an excision circle in a targeted manner. The extra steps involved make the instant process more efficient and more amenable to traditional plant breeding techniques. Accordingly, it is respectfully submitted that this rejection may be withdrawn.

Claims 1-3, 5, 8 and 11-17 stand rejected as anticipated under 35 USC 102(e) by US Patent No. 6,746,870 to Ow et al. This rejection is respectfully traversed for essentially the same reasons as set forth above in conjunction with Baszczynski et al. Specifically, Ow uses a system in which recombination sites are different rather than identical and does not utilize the "excision circle" technique employed in the present invention. Accordingly, it is respectfully submitted that this rejection may also be withdrawn.

It is respectfully submitted that this application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,



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